

Food substance	Procedure	Observation	Conclusion
Starch	To solution W add (2drops of)iodine solution	Brown/ yellow colour persist/remains Rej. No colour change observed	Starch absent
Reducing sugars	To solution W, add Benedict's solution and heat to boil	Colour changes from blue to green to yellow to orange Acc. Final colour. Rej: red colour	Reducing sugars present
Ascorbic Acid/vitamin C	To DCPIP, add the food solution dropwise, while shaking.	Blue color of the DCPIP retain/remain	Ascorbic Acid absent
proteins	To solution W add sodium hydroxide then copper (II) sulphate Rej: heat	Blue color of copper (II) sulphate changes to purple	proteins present

**BIOLOGY CASPA MARKING SCHEME
FORM 4 TERM 1 2021**

Question 1

Question 3

- (a) J - Lungs
K - Gills
- (b) Gaseous exchange / external respiration
- (c) X - Ring of cartilage
Y - Lung
Z - Heart
- (d) (i) (1) Gill rakers
(2) Gill arch / bar
(3) Gill filaments
- (ii) -Rake like / projections for trapping solid particles
-Toothlike/ needle like projections for trapping / sieving / filtering solid particles from damaging the filaments
-Many / numerous/ long filaments to increase surface area for gaseous exchange

QUESTION 2

- a) A – plumule;
C – Hypocotyl;
D – Cotyledon/ seed leaf;
- b) i) -Dicotyledonae;
ii) -Presence of two cotyledons;
-Network venation;
- c) - Storage of food;
- Formation of the first seed leaf;
- d) Auxins diffuse on the lower side of the root (due to gravity) in the root high concentration of auxin inhibits growth of the root, while low concentration promotes growth the root;
- Less auxins concentration on the upper side causes faster cell elongation than on lower side hence the formation of the curvature; (Max. 3)
- e) Type – Epigeal germination;
Reason – cotyledons emerges above the ground;